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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,359

12/30/2003

Ioan Sauciuc

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1189

8791

7590

02/26/2008

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EXAMINER

WEINSTEIN, LEONARD J

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

02/26/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/749,359	<b>Applicant(s)</b> SAUCIUC ET AL.	
	<b>Examiner</b> LEONARD J. WEINSTEIN	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6,7,9-12,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6,7,9-12,25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 7, 2008 has been entered.
2. This office action is in response to the amendment of January 7, 2008. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.
3. The examiner acknowledges the new claims 25 and 26.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 6-7, 10-12, and 25 are rejected under 35 U.S.C. 102(a) as being anticipated by Saucius et al. US 2003/0205364. Saucius teaches all the limitations as claimed for a method including: **[claim 6]** determining a presence of a threshold amount of a fluid that is within a pump/compressor 10, condensing vapor of the fluid or evaporating liquid of the fluid as it is present in the pump/compressor 10 (¶ 0025-0029); **[claim 7]** checking a sensor 24 (¶ 0027) coupled to the pump/compressor 10; **[claim 10]** repeating the steps of claim 6 until there is

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no longer a threshold amount of the fluid in the pump/compressor 10 (§0025, §0029); **[claim 11]** after the step of claim 10, the step of applying power to the pump/compressor 10 (§0028); **[claim 12]** applying power to a heat source 22 coupled to the pump/compressor (§0027); **[claim 25]** and powering on the pump/compressor after condensing or after evaporating (§0029).

6. Claims 6-7, 9-12, and 25-26 rejected under 35 U.S.C. 102(b) as being anticipated by Manz et al. 5,497,625. Manz teaches all the limitations as claimed for a method including the steps of: **[claim 6]** determining a presence of a threshold amount of a fluid that is within a pump or a compressor 12, via elements 62, 64, and 66, and condensing vapor of the fluid as it is present in the pump (12) or evaporating liquid of the fluid as it is present in the compressor (12) (col. 3 ll. 19-46); **[claim 7]** the step of checking a sensor, elements 62 and 66, coupled to the pump or compressor 12; **[claim 9]** the step of cooling vapor within a liquid pump 12 to a condensation point by a thermoelectric cooler 24; **[claim 11]** the steps of repeating the steps of claim 9 until there is no longer a threshold amount of the fluid in the pump or compressor (12) (col. 3 ll. 33-46); **[claim 12]** the step of claim 9 applying power to the pump or compressor (12) (col. 3 ll. 46-62); **[claim 25]** powering on the pump 12 after condensing, or powering on the compressor 12 after evaporating (col. 3 ll. 19-62); **[claim 26]** and the steps of checking a sensor 66, coupled to the pump or compressor (12), wherein condensing comprises cooling vapor within a liquid pump, element 16 of 12, to a condensation point by a thermal electric cooler 24, and further comprising turning off the sensor 66 and the thermal electric cooler 24, then turning on the pump 12 (col. 3 ll. 39-46).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sauciuc et al. US 2003/0205364 in view of Harrison et al. US 2002/0162339. Sauciuc teaches all the limitations as claimed for method as discussed and the step checking a sensor 24 (¶0027) coupled to the pump/compressor 10 wherein condensing comprises cooling vapor within a liquid pump to a condensation point (¶ 0028) and further comprising turning off the sensor 24 (¶ 0027) and a heat source 34, then turning on the pump 10 (0029); but fails to teach the following limitation that is taught by Harrison for a method including cooling a vapor to a condensation point by a thermoelectric cooler 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify method wherein a thermoelectric cooler was used in order to continuously transfer heat from a thermal load (Harrison ¶ 0012).

***Response to Arguments***

10. Applicant's arguments with respect to claims 6-7 and 9-11 have been considered but are moot in view of the new ground(s) of rejection.

11. The examiner notes that the references cited above would not be required to teach a pump beyond an apparatus that moves a fluid as stated by applicant (pg. of the application). Therefore with reference to Sauciuc, the reference teaches element 10 to be a "pumpless"

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system however element 10 the actual apparatus which moves a fluid. The specification does not enable pump to be anything more than an apparatus that moves a fluid, as there are no moving parts or identifiable pumping members excluding the pump itself, disclosed. Taking the broadest reasonable interpretation of the limitations as claimed into consideration, element 10 of Saucic is itself a pump comprised of the all intermediate parts (i.e. evaporator, heater, etc.) taught by embodiment shown in figure 1. The same principle applies to the vessel 12 of Manz wherein the entire system acts to create a volume of refrigerant under pressure by a control of the system and transfer the refrigerant with the use of valves controlled by the same controller that acts to create a fluid under pressure, once thresholds of a fluid are determined to have been reached.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited on form 892 herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD J. WEINSTEIN whose telephone number is (571)272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/  
Supervisory Patent Examiner, Art Unit  
3683

/Leonard J Weinstein/  
Examiner, Art Unit 3746